

## CHAPTER 2 – PROJECT PURPOSE AND NEED

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### 2.1 BACKGROUND AND OVERVIEW

The concept for what is now referred to as SR 303L was developed in the *West Area Transportation Analysis* prepared for MAG in 1984. This analysis identified the long-term need for a freeway that would extend from MC 85 to I-17 through what were then the outer reaches of the greater Phoenix metropolitan area. The general corridor for this freeway was referred to as Cotton Lane/Northwest Loop. The general corridor location included in that study was located near the Happy Valley Road section line and then traveled northeasterly to join I-17 near the Dixileta Drive section line.

The corridor was included in the MAG Long Range Transportation Plan in 1985 and added to the State Highway System as SR 517. The corridor was renamed the Estrella Corridor in 1986, and it was expected to be constructed in the 20-year period covered by an approved sales tax. The State Transportation Board redesignated the Estrella Corridor as SR 303L in 1987.

In 1991, ADOT completed location studies and an EA for the entire SR 303L corridor from MC 85 to I-17 (ADOT 1991). The basic alignment extended from Happy Valley Road and 115<sup>th</sup> Avenue northeastward to a connection with I-17 between the Dixileta Drive and Lone Mountain Road section lines.

By 1994, because of funding shortcomings, SR 303L was removed from the funded program and the MAG long-range plan. Maricopa County and the State of Arizona reached agreement that the county, through MCDOT, would be the caretaker of the corridor. In 1998, MCDOT began a series of studies to revive the project development process for the corridor. In 1999 MAG placed the corridor back on the long-range plan as a designated study corridor.

In 2001, the MAG Regional Council recommended the Lone Mountain Road Option as the preferred corridor for the SR 303L connection to I-17. Later in 2001, MCDOT prepared a Feasibility/Location Study for a portion of SR 303L from Happy Valley Road northward to near the Lone Mountain Road section line and then eastward across the Agua Fria River to Lake Pleasant Parkway (MCDOT 2001).

MCDOT began construction of an interim four-lane divided highway in 2002 and opened it to traffic from US 60 to Happy Valley Parkway in 2004. As part of that same contract, Happy Valley Parkway was constructed as a five-lane arterial with a new bridge over the Agua Fria River and connections to Lake Pleasant Parkway to the east and extending westward to the

Vistancia residential development near Lake Pleasant Parkway and the Carefree Highway. In 1998, the State Transportation Board designated the interim SR 303L as Lake Pleasant Road from north of Happy Valley Parkway to Carefree Highway and then Carefree Highway to I-17. This Happy Valley Parkway connection enabled those roads to function as the extension of the interim SR 303L.

## **2.2 PURPOSE AND NEED**

Population growth in Maricopa County has increased at a phenomenal rate. In 1985 the population in the greater Phoenix metropolitan area stood at just less than 2 million. In 2004, the estimated population was in excess of 3.5 million. By the year 2030, projections show the population doubling to approximately 6.3 million people. This growth is expected to be partially (and perhaps substantially) absorbed in the northwestern portions of the Phoenix metropolitan area where vacant, developable land is readily available. SR 303L is proposed to meet the transportation needs of projected growth in this region. The study area for the proposed project has been comprehensively planned by the City of Phoenix. Although it is now largely vacant desert, the study area is subject to intense future development pressure.

SR 303L would serve as the transportation backbone for this portion of the northwest valley. The planning of and commitment to construct this freeway prior to development would enable proactive coordinated land use and transportation development to occur, rather than having to retrofit a freeway system into the developed urban area in the future.

### **2.2.1 Need for the Proposed Project**

MAG forecasts that the population within the northwestern portion of the metropolitan area, which includes the areas most likely to be affected by the SR 303L construction, will grow to 1.86 million by 2030. A traffic analysis based on 2030 MAG forecasts was conducted to determine the need for a new freeway to address future traffic demand (URS Corporation [URS] 2005). A volume-to-capacity analysis was used to determine future 2030 arterial conditions, if SR 303L were not constructed. This analysis compared the 2030 volume of traffic projected to use the roadways with the capacity of the 2030 planned arterial roadway system. The resulting volume-to-capacity ratio was used as an indicator of heavy roadway congestion. Values over 1.0 indicate that the projected traffic volume is greater than the planned roadway capacity, thus predicting that the roadway would be operating at heavily congested conditions.

Table 2-1 provides a comparison of conditions forecast for the No-Build scenario and with the construction of the proposed project. Without the proposed project, by 2030 the major streets in the area will carry an average of 33 percent higher traffic volumes. Every arterial street is

associated with forecast volumes for 2030 that are greater than road capacity (as indicated by a volume-to-capacity ratio greater than 1.0) except for 67<sup>th</sup> Avenue. The average volume-to-capacity ratio without the proposed project is 1.12, while the implementation of the proposed project would reduce the average volume-to-capacity ratio to an acceptable 0.88. Volume-to-capacity ratios over 0.90 indicate peak-hour congestion, and ratios over 1.0 indicate that the street is not able to accommodate the forecasted peak-period traffic. According to these traffic studies, the SR 303L is needed to serve the projected traffic demand and to prevent the severe traffic congestion that would result if the SR 303L were not constructed.

<b>Table 2-1</b> <b>Volume-to-Capacity Analysis for Arterial Network</b>					
Roadway	Number of Lanes	Capacity <sup>1</sup>	Year 2030 Forecasted Volume <sup>1</sup>	Difference	Volume-to-Capacity Ratio
<b>Conditions under the No-Build Scenario</b>					
Carefree Highway <sup>2</sup>	6	50,000	63,530	-13,530	1.27
Dove Valley <sup>2</sup>	4	33,000	34,838	-1,838	1.06
Happy Valley <sup>2</sup>	6	50,000	59,708	-9,708	1.19
Lake Pleasant <sup>3</sup>	6	50,000	69,459	-19,459	1.39
67 <sup>th</sup> Avenue <sup>3</sup>	6	50,000	37,366	12,634	0.75
51 <sup>st</sup> Avenue <sup>3</sup>	6	50,000	52,828	-2,828	1.06
TOTALS		283,000	317,729	-34,729	1.12
<b>Conditions with the Proposed Project</b>					
Carefree Highway <sup>2</sup>	6	50,000	43,114	6,886	0.86
Dove Valley <sup>2</sup>	4	33,000	24,192	8,808	0.73
Happy Valley <sup>2</sup>	6	50,000	55,095	-5,095	1.10
Lake Pleasant <sup>3</sup>	6	50,000	46,602	3,398	0.93
67 <sup>th</sup> Avenue <sup>3</sup>	6	50,000	24,035	25,965	0.48
51 <sup>st</sup> Avenue <sup>3</sup>	6	50,000	46,183	3,817	0.92
TOTALS		283,000	239,221	34,757	0.88

<sup>1</sup> In terms of vehicles per day.

<sup>2</sup> Volumes taken at a north/south screenline between 51<sup>st</sup> Avenue and 67<sup>th</sup> Avenue.

<sup>3</sup> Volumes taken at an east/west screenline between Dixileta Drive and Jomax Road.

## 2.2.2 Purpose of the Proposed Project

The proposed SR 303L facility is a portion of a regional transportation facility planned to provide a major highway linking the Cities of Goodyear, Glendale, Surprise, Peoria, and Phoenix, as well as other areas in the northwest and southwest portions of the Phoenix metropolitan area. The roadway included in the RTP (MAG 2003) is designed to provide safer high-speed and high-capacity roadways that overlay the system of existing and planned arterial roadways. The purpose of the planned freeway system is to link major portions of the Phoenix metropolitan area, relieve the arterial system of longer vehicle trips, link the rural highway system to the urban freeway system, provide an access controlled facility, provide a through route for intrastate and interstate traffic, and serve as the backbone for the city street and transportation network.

## **2.3 CONFORMANCE WITH REGULATIONS, LAND USE PLANS, AND OTHER PLANS**

The proposed project crosses lands that are under the jurisdiction of the Cities of Peoria and Phoenix and Maricopa County. The Arizona State Land Department (ASLD); U.S. Department of Interior, Bureau of Land Management (BLM); U.S. Bureau of Reclamation (BOR); and private entities manage lands crossed by the proposed project. Jurisdictional boundaries and land ownership patterns are illustrated in Figures 2-1 and 2-2, respectively.

The General Plans for the Cities of Peoria and Phoenix and MAG's Valley Vision 2025 were reviewed to determine the conformance of the proposed project with local planning goals and objectives. Applicable land use planning documents for the affected federal (BLM and BOR) and state (ASLD) land management agencies also were reviewed to determine project conformance. In addition, throughout the entire study process, representatives from these jurisdictions and agencies were actively involved with the project through monthly stakeholder meetings. Overall, the proposed project is in conformance with established plans.

### **2.3.1 City of Peoria General Plan**

The land use component of the City of Peoria General Plan represents a long-range planning tool to be used in conjunction with the other elements of the General Plan to help guide future growth, revitalization, and preservation efforts within the City's planning boundary. Further, the General Plan would be updated as it specifically relates to trails and trail alignments based on decisions regarding the preferred alignment and ultimate construction of the project. The land use plan identifies SR 303L as a proposed freeway corridor. The proposed major General Plan Amendment dated May 2004 includes a map of the preferred alignment that is evaluated in this EA. The General Plan land use element addresses the strong interrelationship between land use and transportation, and incorporates the future arterial roadway network identified in MAG's Northwest Valley Transportation Study, including SR 303L (City of Peoria 2001). Coordination with the City of Peoria would continue throughout the planning and design of the proposed project.

### **2.3.2 City of Phoenix General Plan**

The 2001 General Plan Update for the City of Phoenix does not contain the recommended alignment for SR 303L; however, the project is fully supported by the City of Phoenix as evidenced by their continuous involvement throughout the study process and written communication stating the City's concurrence with the Alignment Selection report (URS 2004c).

Coordination with the City of Phoenix would continue throughout the planning and design of the proposed project.

### **2.3.3 Maricopa Association of Governments**

The MAG Valley Vision 2025 clearly expresses a desire for implementation of the proposed project. The proposed project would be in conformance with the goals of providing access and integrating transportation and land use planning in MAG's Valley Vision 2025 planning document.

MAG's RTP includes the recommended SR 303L extension along the Lone Mountain Road section line to connect with I-17. MAG has participated throughout the study and alternative selection process to provide input and ensure communication with ADOT on the proposed project. Coordination with MAG would continue throughout the planning and design of the proposed project.

### **2.3.4 Arizona State Land Department**

The proposed project crosses Arizona State Trust lands owned and administered by ASLD. As a result, right-of-way approval would be required from ASLD for those portions of the proposed project that cross Arizona State Trust lands. ASLD has participated throughout the study and alternative selection process to provide input and ensure that any potential concerns are addressed. Coordination with ASLD would continue throughout the planning and design of the proposed project.

### **2.3.5 Bureau of Land Management**

BLM owns parcels of land scattered throughout the study area and has participated during the study and alternative selection process to provide input and address any potential concerns. Coordination with BLM would continue throughout the planning and design of the proposed project.

### **2.3.6 Bureau of Reclamation**

The proposed project would cross the CAP Canal near New River approximately one-half mile south of the Dove Valley Road alignment. The CAP Canal is owned by BOR, and operated and maintained by the Central Arizona Water Conservation District (CAWCD) (McBee 2002). An encroachment permit would be required from BOR for crossing the CAP Canal. Discussions from representatives of CAWCD have occurred throughout the project design process and are

ongoing, particularly to address the crossing of the CAP facilities. Coordination with BOR would continue throughout the course of the project.

## **2.4 GENERAL PROJECT SCHEDULE**

According to the MAG RTP, the proposed project would be built initially with two lanes in each direction with funding of approximately \$250 million allocated for SR 303L between US 60 and I-17 in Phase I (2005-2010) of the RTP. The RTP includes three lanes in both directions and additional funding for these improvements is allocated in Phase II (2011-2015) of the RTP.

## **2.5 ISSUES ELIMINATED FROM DETAILED STUDY**

Based on existing sources of data and the best available information, it was reasonable to make the following determinations:

There are no known sole source aquifers, wetlands, wilderness areas, designated critical habitats, or wild and scenic rivers affected by the proposed project. Therefore, there would be no impacts to these resources as a result of the proposed project. This negative declaration of impacts to the above-referenced resources will not be restated in this document.